

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P214603

Luminaire Tested: **ARCH-AF24-40-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-40-D-U-T2R-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5164 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

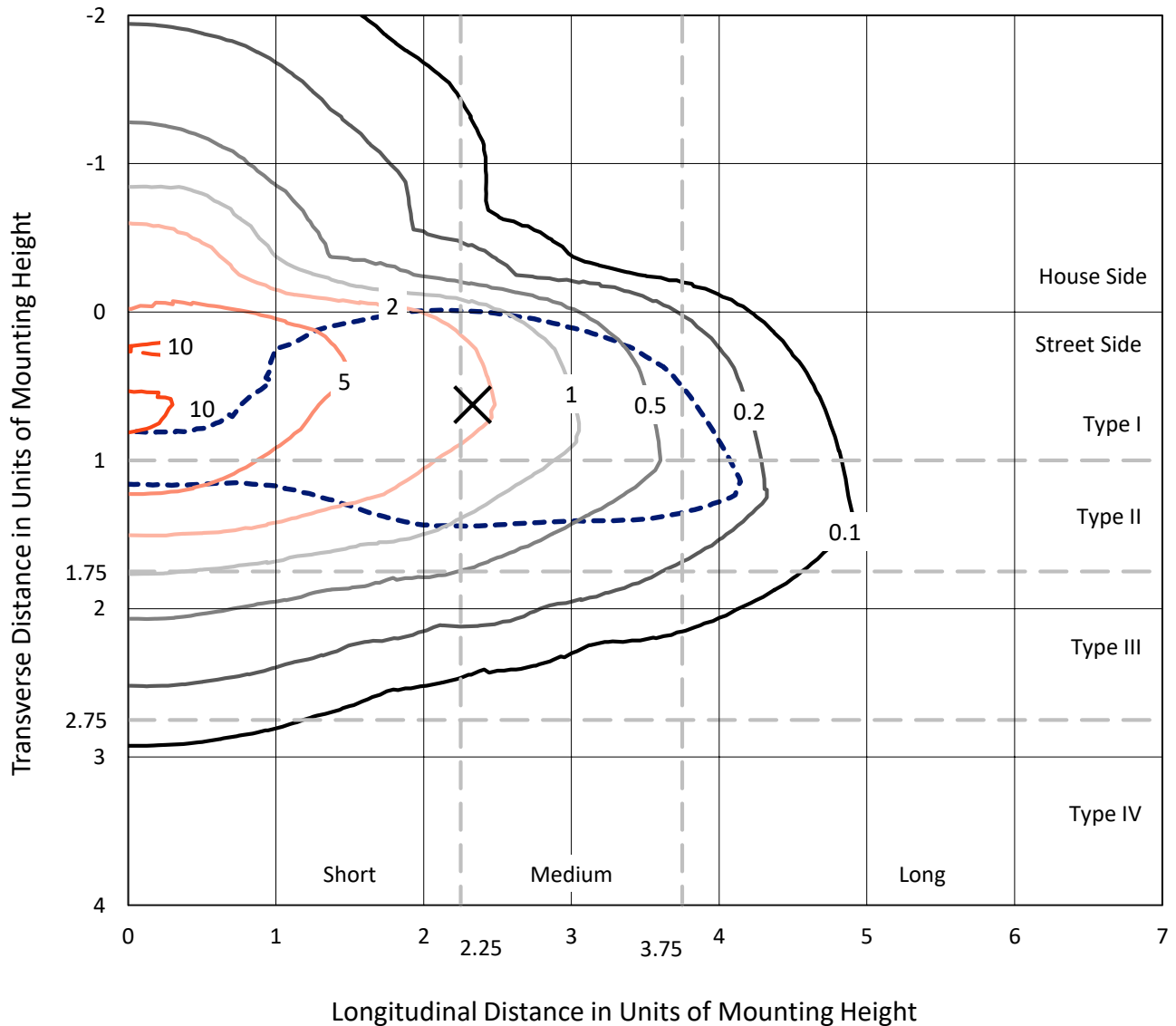
Input Watts (W): 40
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

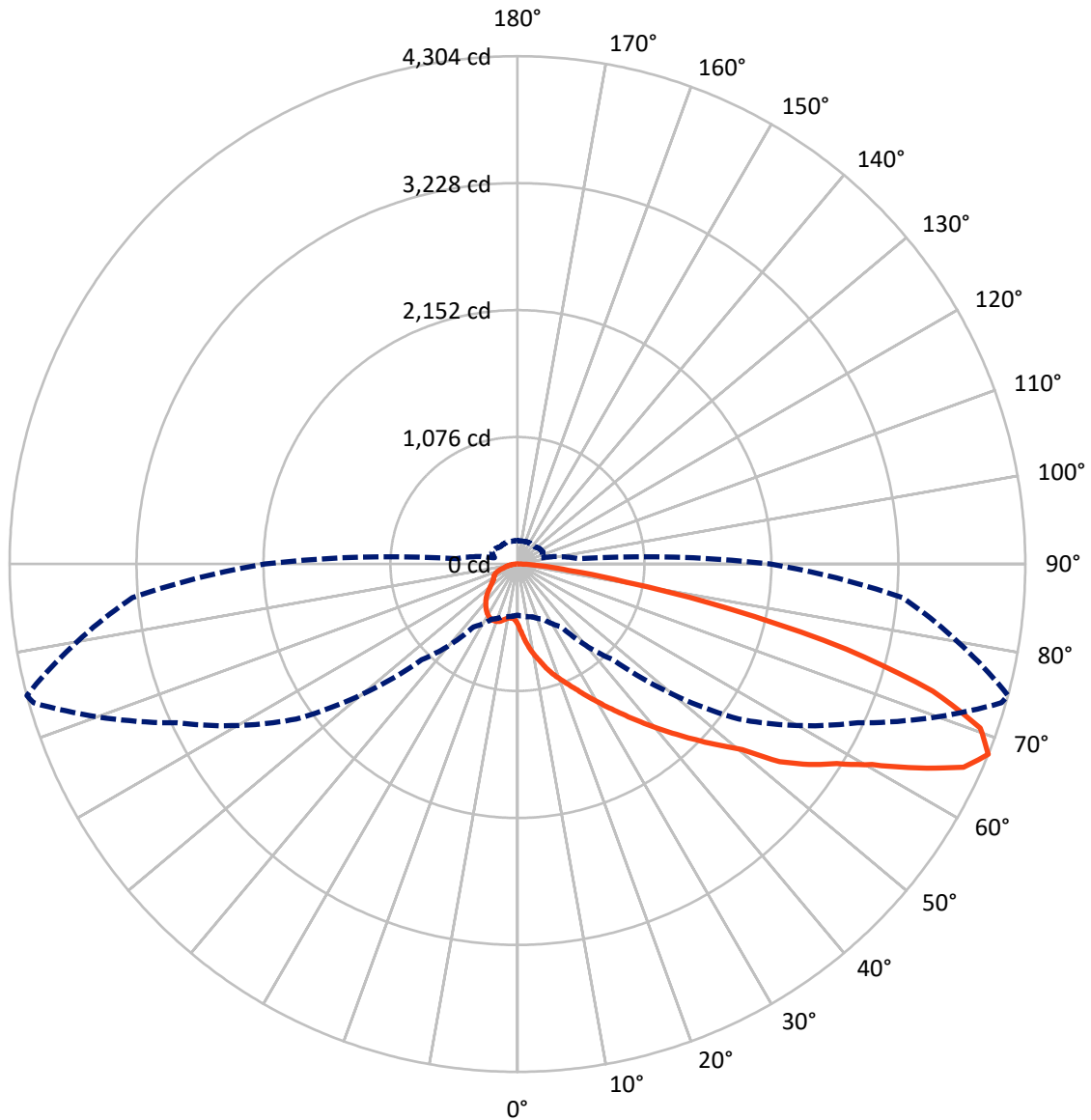
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 881.8 | 0.0 | 881.8 |
| | % Fixture | 17.1 | 0.0 | 17.1 |
| Street Side | Lumens | 4282.2 | 0.0 | 4282.2 |
| | % Fixture | 82.9 | 0.0 | 82.9 |
| Total | Lumens | 5164.0 | 0.0 | 5164.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.1 | 1.2 |
| 10°-20° | 217.2 | 4.2 |
| 20°-30° | 396.2 | 7.7 |
| 30°-40° | 650.4 | 12.6 |
| 40°-50° | 940.6 | 18.2 |
| 50°-60° | 1108.4 | 21.5 |
| 60°-70° | 1077.1 | 20.9 |
| 70°-80° | 598.7 | 11.6 |
| 80°-90° | 115.1 | 2.2 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 5164.0 | 100.0 |
| 0°-180° | 5164.0 | 100.0 |

Coefficient of Utilization



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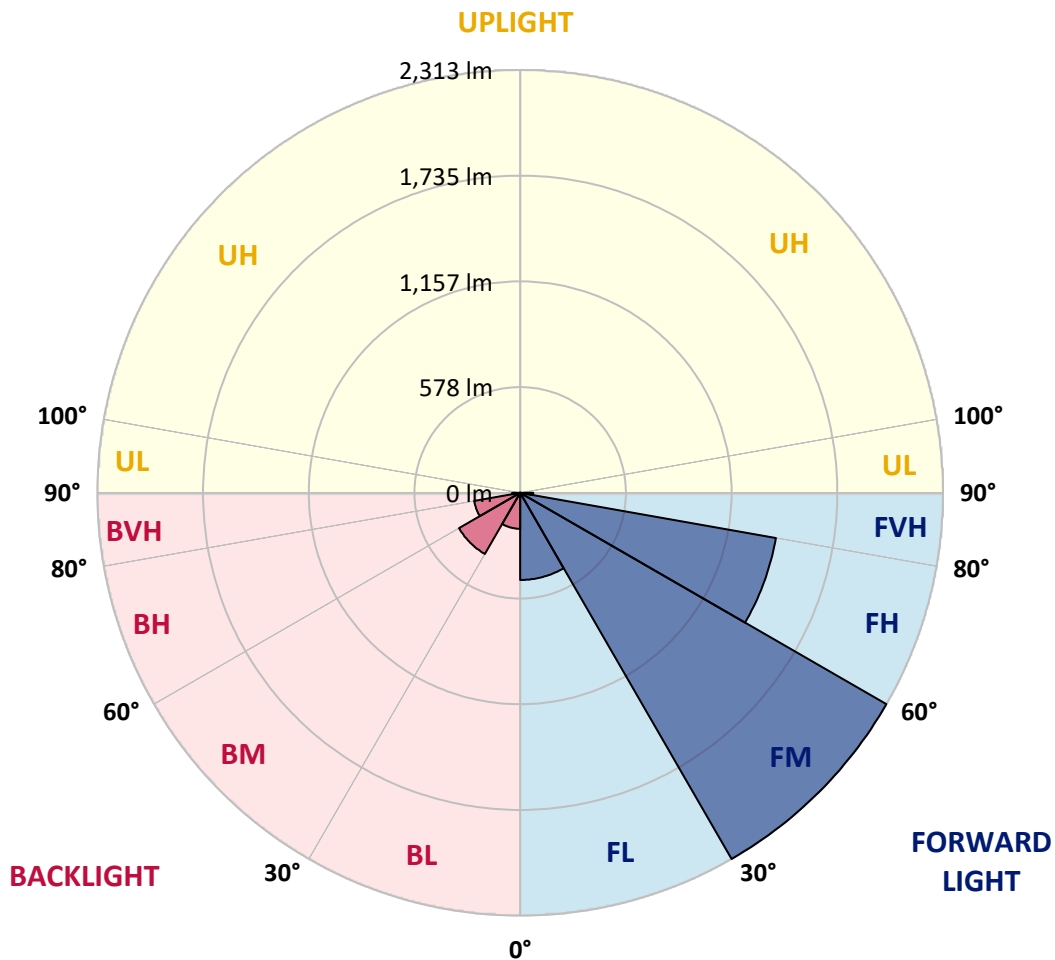
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 476.8 | 9.2 | | | |
| FM (30°-60°) | 2313.2 | 44.8 | | | |
| FH (60°-80°) | 1420.6 | 27.5 | | | G1/1800 |
| FVH (80°-90°) | 71.7 | 1.4 | | | G1/100 |
| BL (0°-30°) | 196.8 | 3.8 | B1/500 | | |
| BM (30°-60°) | 386.2 | 7.5 | B1/1000 | | |
| BH (60°-80°) | 255.3 | 4.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 43.5 | 0.8 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 |
| 2.5° | 725.5 | 727.6 | 723.3 | 713.6 | 699.5 | 673.6 | 651.0 | 611.0 | 575.4 | 571.1 | 533.3 |
| 5° | 852.8 | 855.0 | 849.6 | 837.7 | 822.6 | 794.5 | 763.2 | 711.4 | 654.2 | 643.4 | 563.5 |
| 7.5° | 940.3 | 941.4 | 934.9 | 923.0 | 911.1 | 883.1 | 851.8 | 793.5 | 723.3 | 714.7 | 602.4 |
| 10° | 1014.8 | 1016.9 | 1008.3 | 1000.7 | 987.8 | 959.7 | 927.3 | 865.8 | 793.5 | 781.6 | 642.3 |
| 12.5° | 1083.9 | 1086.0 | 1080.6 | 1074.1 | 1069.8 | 1043.9 | 1008.3 | 934.9 | 857.2 | 844.2 | 689.8 |
| 15° | 1130.3 | 1132.4 | 1133.5 | 1142.2 | 1147.6 | 1129.2 | 1093.6 | 1013.7 | 926.2 | 914.4 | 746.0 |
| 17.5° | 1117.3 | 1122.7 | 1138.9 | 1170.2 | 1203.7 | 1204.8 | 1175.6 | 1091.4 | 994.3 | 981.3 | 803.2 |
| 20° | 1079.5 | 1083.9 | 1103.3 | 1150.8 | 1216.6 | 1254.4 | 1252.3 | 1170.2 | 1057.9 | 1043.9 | 856.1 |
| 22.5° | 1110.8 | 1116.2 | 1116.2 | 1145.4 | 1210.2 | 1280.3 | 1308.4 | 1247.9 | 1121.6 | 1108.7 | 909.0 |
| 25° | 1244.7 | 1247.9 | 1225.3 | 1213.4 | 1237.2 | 1301.9 | 1354.8 | 1332.2 | 1199.4 | 1184.3 | 966.2 |
| 27.5° | 1431.5 | 1426.1 | 1398.0 | 1350.5 | 1324.6 | 1341.9 | 1395.8 | 1412.0 | 1289.0 | 1270.6 | 1025.6 |
| 30° | 1617.2 | 1613.9 | 1581.5 | 1517.8 | 1459.5 | 1422.8 | 1441.2 | 1483.3 | 1386.1 | 1364.5 | 1082.8 |
| 32.5° | 1791.0 | 1785.6 | 1749.9 | 1675.4 | 1609.6 | 1541.6 | 1506.0 | 1548.1 | 1489.8 | 1464.9 | 1146.5 |
| 35° | 1950.7 | 1936.7 | 1901.1 | 1823.3 | 1755.3 | 1690.6 | 1603.1 | 1609.6 | 1602.0 | 1576.1 | 1216.6 |
| 37.5° | 2080.3 | 2069.5 | 2030.6 | 1958.3 | 1886.0 | 1824.4 | 1732.7 | 1679.8 | 1722.9 | 1698.1 | 1297.6 |
| 40° | 2194.7 | 2182.8 | 2142.9 | 2070.6 | 2003.6 | 1945.3 | 1873.0 | 1765.0 | 1859.0 | 1830.9 | 1388.3 |
| 42.5° | 2281.1 | 2272.4 | 2240.0 | 2168.8 | 2104.0 | 2051.1 | 2015.5 | 1873.0 | 2000.4 | 1973.4 | 1487.6 |
| 45° | 2327.5 | 2318.9 | 2301.6 | 2244.4 | 2185.0 | 2144.0 | 2147.2 | 2001.5 | 2148.3 | 2125.6 | 1605.3 |
| 47.5° | 2270.3 | 2276.7 | 2291.9 | 2281.1 | 2244.4 | 2224.9 | 2264.9 | 2134.2 | 2313.5 | 2291.9 | 1732.7 |
| 50° | 2117.0 | 2123.5 | 2183.9 | 2258.4 | 2271.4 | 2295.1 | 2370.7 | 2287.5 | 2488.3 | 2471.1 | 1890.3 |
| 52.5° | 1740.2 | 1775.8 | 1943.2 | 2121.3 | 2243.3 | 2341.5 | 2488.3 | 2515.3 | 2783.1 | 2783.1 | 2168.8 |
| 55° | 1314.9 | 1346.2 | 1537.3 | 1848.2 | 2134.2 | 2345.8 | 2574.7 | 2669.7 | 2995.7 | 3000.0 | 2314.5 |
| 57.5° | 1065.5 | 1084.9 | 1178.9 | 1497.3 | 1905.4 | 2291.9 | 2677.3 | 2802.5 | 3172.8 | 3192.2 | 2502.4 |
| 60° | 864.7 | 875.5 | 937.0 | 1158.3 | 1589.1 | 2146.1 | 2750.7 | 2992.5 | 3425.4 | 3452.4 | 2742.0 |
| 62.5° | 695.2 | 706.0 | 747.0 | 879.8 | 1246.9 | 1873.0 | 2737.7 | 3190.0 | 3762.2 | 3806.5 | 3056.2 |
| 65° | 554.9 | 566.8 | 593.7 | 675.8 | 924.1 | 1534.0 | 2604.9 | 3291.5 | 4110.9 | 4154.1 | 3264.5 |
| 67.5° | 432.9 | 443.7 | 462.0 | 516.0 | 651.0 | 1147.6 | 2290.8 | 3184.6 | 4267.4 | 4304.1 | 3275.3 |
| 70° | 327.1 | 332.5 | 347.6 | 382.2 | 465.3 | 762.2 | 1793.1 | 2826.2 | 4127.1 | 4160.5 | 3059.4 |
| 72.5° | 253.7 | 252.6 | 261.2 | 278.5 | 324.9 | 524.7 | 1188.6 | 2298.3 | 3648.8 | 3683.4 | 2610.3 |
| 75° | 207.3 | 206.2 | 211.6 | 217.0 | 235.3 | 351.9 | 701.7 | 1730.5 | 2945.0 | 2879.1 | 1958.3 |
| 77.5° | 174.9 | 173.8 | 179.2 | 180.3 | 187.8 | 242.9 | 399.4 | 1138.9 | 1964.8 | 1851.4 | 1103.3 |
| 80° | 147.9 | 146.8 | 153.3 | 155.5 | 160.9 | 178.1 | 229.9 | 616.4 | 986.7 | 934.9 | 526.8 |
| 82.5° | 111.2 | 115.5 | 127.4 | 132.8 | 139.3 | 131.7 | 142.5 | 272.0 | 457.7 | 437.2 | 228.9 |
| 85° | 54.0 | 63.7 | 96.1 | 106.9 | 114.4 | 83.1 | 97.2 | 128.5 | 206.2 | 196.5 | 92.8 |
| 87.5° | 18.4 | 16.2 | 57.2 | 68.0 | 74.5 | 37.8 | 54.0 | 71.2 | 85.3 | 77.7 | 29.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 | 511.7 |
| 2.5° | 517.1 | 500.9 | 477.2 | 458.8 | 446.9 | 437.2 | 432.9 | 431.8 | 429.7 | 428.6 | 428.6 |
| 5° | 527.9 | 498.7 | 462.0 | 442.6 | 437.2 | 432.9 | 435.1 | 436.1 | 436.1 | 436.1 | 436.1 |
| 7.5° | 544.1 | 503.1 | 458.8 | 445.8 | 444.8 | 444.8 | 451.2 | 454.5 | 456.6 | 456.6 | 456.6 |
| 10° | 565.7 | 510.6 | 464.2 | 453.4 | 456.6 | 458.8 | 466.4 | 470.7 | 472.8 | 473.9 | 475.0 |
| 12.5° | 594.8 | 526.8 | 475.0 | 466.4 | 470.7 | 471.8 | 477.2 | 479.3 | 481.5 | 482.6 | 482.6 |
| 15° | 633.7 | 550.6 | 492.3 | 481.5 | 482.6 | 481.5 | 481.5 | 479.3 | 478.2 | 478.2 | 480.4 |
| 17.5° | 673.6 | 573.2 | 507.4 | 492.3 | 488.0 | 479.3 | 472.8 | 467.4 | 464.2 | 462.0 | 463.1 |
| 20° | 713.6 | 593.7 | 516.0 | 494.4 | 482.6 | 468.5 | 456.6 | 449.1 | 444.8 | 440.5 | 442.6 |
| 22.5° | 753.5 | 613.2 | 519.3 | 488.0 | 470.7 | 450.2 | 437.2 | 425.3 | 415.6 | 409.1 | 410.2 |
| 25° | 797.8 | 634.8 | 519.3 | 480.4 | 454.5 | 432.9 | 416.7 | 397.3 | 383.2 | 377.8 | 380.0 |
| 27.5° | 842.0 | 653.1 | 513.9 | 466.4 | 436.1 | 414.5 | 390.8 | 368.1 | 359.5 | 356.2 | 357.3 |
| 30° | 886.3 | 667.2 | 502.0 | 449.1 | 416.7 | 393.0 | 361.6 | 346.5 | 335.7 | 327.1 | 328.2 |
| 32.5° | 930.6 | 676.9 | 485.8 | 427.5 | 396.2 | 366.0 | 340.1 | 322.8 | 303.4 | 292.6 | 293.6 |
| 35° | 981.3 | 684.4 | 466.4 | 405.9 | 373.5 | 342.2 | 322.8 | 294.7 | 274.2 | 265.6 | 263.4 |
| 37.5° | 1034.2 | 689.8 | 445.8 | 382.2 | 350.9 | 324.9 | 305.5 | 271.0 | 251.5 | 239.7 | 238.6 |
| 40° | 1091.4 | 692.0 | 421.0 | 357.3 | 329.3 | 314.1 | 282.8 | 256.9 | 223.5 | 215.9 | 215.9 |
| 42.5° | 1159.4 | 690.9 | 396.2 | 332.5 | 305.5 | 289.3 | 266.6 | 254.8 | 225.6 | 218.1 | 213.7 |
| 45° | 1237.2 | 690.9 | 369.2 | 303.4 | 281.8 | 258.0 | 248.3 | 240.7 | 221.3 | 224.5 | 226.7 |
| 47.5° | 1325.7 | 688.7 | 336.8 | 279.6 | 262.3 | 241.8 | 236.4 | 220.2 | 212.7 | 214.8 | 217.0 |
| 50° | 1447.7 | 692.0 | 307.7 | 260.2 | 248.3 | 231.0 | 224.5 | 215.9 | 212.7 | 213.7 | 212.7 |
| 52.5° | 1617.2 | 681.2 | 279.6 | 248.3 | 237.5 | 214.8 | 214.8 | 213.7 | 214.8 | 213.7 | 213.7 |
| 55° | 1710.0 | 657.4 | 259.1 | 241.8 | 229.9 | 207.3 | 211.6 | 213.7 | 215.9 | 214.8 | 214.8 |
| 57.5° | 1841.7 | 641.2 | 242.9 | 237.5 | 225.6 | 205.1 | 209.4 | 213.7 | 214.8 | 213.7 | 213.7 |
| 60° | 1997.1 | 630.5 | 232.1 | 238.6 | 222.4 | 205.1 | 210.5 | 213.7 | 212.7 | 211.6 | 211.6 |
| 62.5° | 2177.4 | 626.1 | 224.5 | 241.8 | 219.1 | 206.2 | 210.5 | 213.7 | 209.4 | 208.4 | 208.4 |
| 65° | 2245.4 | 587.3 | 214.8 | 244.0 | 221.3 | 206.2 | 209.4 | 210.5 | 205.1 | 204.0 | 203.0 |
| 67.5° | 2140.7 | 520.3 | 200.8 | 239.7 | 227.8 | 206.2 | 206.2 | 205.1 | 198.6 | 197.6 | 195.4 |
| 70° | 1906.5 | 431.8 | 179.2 | 225.6 | 232.1 | 207.3 | 201.9 | 196.5 | 190.0 | 190.0 | 185.7 |
| 72.5° | 1561.0 | 340.1 | 151.1 | 200.8 | 228.9 | 210.5 | 193.2 | 185.7 | 178.1 | 178.1 | 173.8 |
| 75° | 1124.9 | 253.7 | 120.9 | 167.3 | 214.8 | 209.4 | 182.4 | 172.7 | 164.1 | 163.0 | 157.6 |
| 77.5° | 641.2 | 178.1 | 98.2 | 130.6 | 191.1 | 204.0 | 172.7 | 157.6 | 147.9 | 144.7 | 141.4 |
| 80° | 329.3 | 119.8 | 79.9 | 102.6 | 158.7 | 188.9 | 165.2 | 140.3 | 129.5 | 124.1 | 118.7 |
| 82.5° | 156.5 | 79.9 | 61.5 | 75.6 | 119.8 | 165.2 | 155.5 | 120.9 | 109.0 | 102.6 | 96.1 |
| 85° | 70.2 | 47.5 | 41.0 | 48.6 | 85.3 | 128.5 | 137.1 | 99.3 | 85.3 | 106.9 | 78.8 |
| 87.5° | 22.7 | 21.6 | 21.6 | 22.7 | 41.0 | 56.1 | 100.4 | 73.4 | 68.0 | 56.1 | 47.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)